MARSHALL PROCEDURES AND GUIDELINES

CD01

CENTER STRATEGIC PLANNING PROCESS

DOCUMENT HISTORY LOG

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Baseline		9/27/01	

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PREFACE

P.1 PURPOSE

The Marshall Space Flight Center (MSFC) strategic planning process provides the requirements, roles, and responsibilities for the development of the Center strategic plan in support of programs, projects, and institutions at MSFC. This process governs the planning, implementation, execution, evaluation, and control of MSFC strategy consistent with established Center and Agency policies and procedures.

P.2 APPLICABILITY

This Marshall Procedures and Guidelines (MPG) defines the process to be used in developing the Center and organizational strategic plan documents which establishes the MSFC long-term goals, objectives, and metrics required to enable mission success in implementing the Agency's and Enterprise's strategic thrust. This document applies to all Center organizations, as prescribed in Section 2.1. Organizations shall employ this process only if directed to do so as outlined in the letter issued by the Center Director.

P.3 AUTHORITY

MPD 1280.1, "Marshall Management Manual"

P.4 APPLICABLE DOCUMENTS

a. NPD 1000.1, "NASA Strategic Plan"

b. NPG 1000.2, "NASA Strategic Management Handbook"

c. NASA Enterprise Strategic Plans (including the current versions of the Earth Science [ES], Space Science [SS], Aero-Space [AS], the Human Exploration and Development of Space [HEDS], and Biological and Physical Research [BPR] Enterprise plans)

d. "NASA Performance Plan"

e. MPG 1440.2, "MSFC Records Management Program"

f. MPG 1130.1, "MSFC Implementation Planning Process"

g. MPG 1130.2, "MSFC Annual Report Process"
h. MPG 1230.1, "Center Resources Management Process"

i. MPG 7120.1, "Program/Project Planning"

j. MWI 7120.4, "Documentation Preparation, Program/Projects"

k. NPG 7120.5, "Program and Project Management Processes and Requirements"

l. MPG 1280.8, "Customer Satisfaction"

m. MPG 1280.9, "Continual Improvement"

n. NPG 1441.1, "NASA Records Retention Schedules"

P.5 REFERENCES

a. "National Aeronautics and Space Act of 1958," as amended, and related legislation including the "Commercial Space Act of 1998"

b. "National Space Policy"

c. "Government Performance and Results Act of 1993"

d. NPG 7120.5, "NASA Program and Project Management Processes and Requirements"

P.6 CANCELLATION

None

                              Original Signed by
                              Axel Roth for

                              A. G. Stephenson
                              Director

DOCUMENT CONTENT

1. DEFINITIONS

1.1 <u>Annual Report</u>. Document that describes the level of performance achieved as compared to goal and metric targets. At MSFC, it is delineated in the form of an annual report.

1.2 <u>Balanced Score Card Web Site</u>. The balanced score card Web site is the MSFC internal Web site that depicts status of MSFC metric performance.

1.3 <u>Continual Improvement</u>. Continual improvement is recurring activity to increase the ability to fulfill requirements.

1.4 <u>Customer Satisfaction</u>. Customer satisfaction is the customer's perception of the degree to which the customer's requirements have been fulfilled.

1.5 <u>Directorate</u>. Directorate is used to refer to all Center directorates, project offices, and staff offices reporting directly to the Center Director. This term will be used hereafter to refer to these organizations. Directorates are also responsible for managing any Center in-house resources allocated to the directorates by the Center Director, including institutional funds, travel funds, and direct and indirect civil service workforce. Director is used to refer to the individuals who are responsible for managing these organizations.

1.6 <u>Fiscal Year</u>. Term used to refer to the budget or operating year/period beginning October 1 and ending the following September 30.

1.7 <u>Government Performance and Results Act (GPRA) of 1993</u>. Requires Federal agencies to develop strategic plans, prepare annual plans setting performance goals, and report annually on actual program performance.

1.8 <u>MSFC Implementation Plan</u>. Center document that delineates the short-term (annual) goals, objectives, and metrics of MSFC in accordance with NASA Headquarters strategic guidance.

1.9 <u>MSFC Senior Management</u>. MSFC senior staff responsible for program direction and execution.

1.10 <u>NASA Enterprise Strategic Plans</u>. Defines the five unique Enterprise (HEDS, ES, SS, AS, and BPR) goals, objectives, and strategies that address the requirements of their respective

primary external customers.

1.11 <u>NASA Performance Plan</u>. Defines the annual performance criteria for the Agency consistent with NASA and Enterprise strategic thrust.

1.12 <u>NASA Strategic Plan</u>. Defines the Agency's vision and mission and provides the fundamental questions of science and research that explain the reason for why we exist and the foundation of our goals.

1.13 <u>Objectives</u>. Organizational efforts employed to achieve strategic goals. Examples of objectives include, but are not limited to, performance criteria, customer satisfaction and quality initiatives, and financial controls.

1.14 <u>Program/Project Manager</u>. The individual designated by MSFC to lead a program/project. The definition and responsibilities of a NASA program/project manager are described in NPG 7120.5, which is included as an applicable document for this Directive. Relative to the strategic planning process, the program/project manager is the MSFC individual accountable and responsible for preparing inputs for both approved and forecasted programs/projects to be included in Center Program Operating Plan (POP) submissions.

2. RESPONSIBILITIES

2.1 The Center Director or designated personnel shall initiate the strategic planning and Center resource planning cycles via a formal letter to the directorates that defines the scope of the activity and outlines the strategic thrust of the Center for the next 1-5 year period. This letter will be issued annually, or at the discretion of the Center Director. The Center Director, or designated personnel, shall also review and approve directorate organizational strategic documents and prioritize Center effort based on available resources.

2.2 The Deputy Center Director shall serve in this process in any capacity defined by the Center Director.

2.3 The Customer and Employee Relations Directorate shall serve as process manager for the Center strategic planning process and assist the directorates in the duties specified in Section 3.

2.3.1 Assist the Center Director in developing guidance, expectations, and schedule of activities and communicating to directorates for the strategic planning process.

2.3.2 Provide periodic status of the strategic process to Center senior management.

2.3.3 Ensure the Agency strategic planning structure is followed for all management activities.

2.3.4 Responsible for ensuring operation/maintenance of the balanced score card Web site.

2.4 Chief Financial Officer shall serve as Process Manager for the Center resource planning cycles and carry out the duties specified in the latest version of MPG 1230.1, "Center Resources Management Process."

2.5 Directorates shall:

2.5.1 Develop or update an integrated planning strategy in accordance with Section 3.

2.5.2 Align resource planning, as appropriate, and consistent with POP guidelines.

2.5.3 Distribute resource allocations to all elements of their respective organizations consistent with directorate-integrated priorities and strategy.

2.5.4 Work with program/project managers to resolve project level problems and/or redistribute allocations.

2.5.5 Communicate and work cooperatively within directorate to resolve problems and issues.

2.5.6 Establish focal point(s) to resolve day-to-day directorate issues during the strategic planning process and serve as a point of contact for any directorate issue(s) concerning strategic planning.

2.5.7 Generate all applicable data to support this process, including metric generation and performance reporting data.

2.6 Senior management shall, at the direction of the Center Director, facilitate the effort identified in paragraph 2.1 of this document.

2.7 All organizations shall provide input as tasked by senior management or the Customer and Employee Relations (CaER) Directorate to support the effort defined in Section 3.

3. PROCEDURE

NASA's Strategic Management Handbook describes the strategic management process in three steps: strategic planning, performance and implementation planning, and performance evaluation. Recognizing the Center's role and the need to align Marshall activities with the overall strategic thrust of the Agency, Marshall implements strategic planning through Implementation Planning, Execution, and Performance Evaluation. Implementation Planning shall be accomplished in accordance with MPG 1130.1, "MSFC Implementation Planning Process." "Program/Project management execution shall be accomplished in accordance with MPG 7120.1, "Program/Project Planning;" MWI 7120.4, "Documentation Preparation, Programs/Projects;" NPG 7120.5, "Program and Project Management Processes and Requirements;" and any other directives established to govern the execution of MSFC programs/projects. Performance evaluation reporting will be accomplished in accordance with MPG 1130.2, "MSFC Annual Report Process." The remainder of this document details the MSFC strategic planning process, which will result in a comprehensive Center planning document, that will provide a roadmap for the future, improved business planning, and flexibility to respond to changing political environments, resources, and priorities.

3.1 Create a Vision and Mission Statement

Per the Agency's Strategic Management Handbook, Centers are not to develop vision statements. (This is an Agency responsibility.) However, individual organizations are not prohibited from developing their own vision, which is important in developing organizational identity early in the strategic planning process. These vision statements generally identify "who we are," "what we do," "where we are going," and "what guiding principles" characterize our efforts.

3.2 External Assessment

The Internal Relations and Communications Department (IRCD) will periodically solicit independent parties to perform the external assessment in order to maximize data accuracy. The first independent assessment will serve as the baseline for external environmental data. In addition to these independent assessments, organizations shall periodically perform customer satisfaction assessments through a selected/targeted survey activity. IRCD will assist in this activity.

3.2.1 Budget/Political Analysis: Effort to review and evaluate budget and programmatic forecast for 5-year period. Evaluate implications for NASA human space, transportation, and science programs specific to plans and schedules. Assess strategic and tactical implications for MSFC activities.

Methodology – For the NASA budget assessment, review new budget documentation, interview political stakeholders, evaluate out-year budget projections in light of Federal fiscal and program priorities. In order to determine priorities within the space program the Center should evaluate the current year NASA budget and out-year submission. In doing so, look at support for human space flight as opposed to science and applications and technology efforts. Determine trends and assess Administration and Congressional priorities. Specific emphasis should be placed on determining baseline trends (i.e., the effect of entitlement programs, debt reduction on the discretionary portion of the overall budget, the budget for Federal Research and Development (R&D) and NASA as an Administration priority versus other R&D expenditures, funding allocated for next generation space transportation system, and mandates concerning the impact of Station cost overruns on other NASA program budgets, etc.).

3.2.2 Stakeholder Assessments: Effort to review and evaluate external customers, industry and academia partners, and other Center contacts to determine the perception of the Center as a team member and ability to deliver on their expected outcomes.

Methodology – For the stakeholders identified above, a comprehensive survey effort will be undertaken to determine the level of satisfaction among the various contacts. Interviews will be conducted with NASA Headquarters' managers, Field Center customers, and peers chosen on a basis of knowledge of MSFC, in order to provide a cross-section of the major Marshall lines of business. NASA contacts can provide invaluable information relative to MSFC's leadership direction, commitment to cooperative efforts, conduct of program management, technical support, customer oriented communications, and institutional/cultural issues.

Partners should be queried to determine their perception of working with Marshall (i.e., MSFC's technical support and skills base, communication issues, accessibility of personnel, response to requests, etc.). Organizations shall report results of their customer satisfaction assessments in accordance with MPG 1280.8, "Customer Satisfaction."

3.3 Current and Future Commitment Assessment

The IRCD will continually monitor Headquarters (all Codes and Enterprises) for updated strategic guidance. Updates to the Agency Strategic Plan, Enterprise Plans, and the Agency Annual Performance Plan will be maintained and distributed to organization points of contact by the IRCD.

3.3.1 Agency Strategic Plan: The Agency's Strategic Plan should be reviewed to evaluate the initiatives of the Agency relative to goals, objectives, and roadmaps for each enterprise. The roadmaps define Agency thrust for near-term, mid-term, and long-term planning purposes. These enterprise roadmaps form the basis for assessment of future commitments. In addition, objectives for the crosscutting processes are delineated. Organizations should ensure that their planned efforts are consistent with Agency strategic thrust.

3.3.2 Enterprise Initiatives, Objectives, and Goals: Each enterprise has a unique set of goals, objectives, and strategies that define how programs will be developed and delivered to external and internal customers. Therefore, each organization should review the applicable enterprise strategic plan to ensure that organization planned efforts and initiatives are consistent with the objectives, goals, and principles outlined in the enterprise plan.

3.3.3 Agency Annual Performance Plan: The Agency publishes an annual performance plan which details performance targets and indicators used in evaluation of NASA's activities for the year. This annual document forms the basis for the Center's implementation plan. Each organization is required to address the requirements of the annual performance plan in its program/project planning efforts as well as implementation plan inputs. Again, they should ensure consistency between Center planning activities and the annual thrust of the Agency relative to target and indicator accomplishment in the near term. The Agency Annual Performance Plan (through the establishment of targets and indicators) establishes the short-term (1 year) commitment of the Center relative to enterprise and crosscutting goals and objectives.

3.3.4 Program/Project Plans: Each organization should review its program and project planning data to determine what level of support is required to ensure mission success. Metric and schedule data will provide an outline of near-term and out-year commitments that the organization must complete, thereby

providing an assessment of relative resource requirements needed to complete these tasks at hand.

3.3.5 Principal Center Support Activities: The Center has been designated (through Appendix B of the Strategic Management Handbook) principal Center responsibility for a variety of functional tasks. Examples include NASA Operational Environment Team (NOET), Earned Value Management (EVM), and NASA's Acquisition Internet Service (NAIS). This list changes periodically following the approval of additional duties for the Centers by NASA Headquarters and the execution of a Memorandum of Understanding between the Centers and applicable Headquarters Codes. Organizations should review the on-line version of NPG 1000.2, "NASA Strategic Management Handbook," to verify tasks assigned the Center (and the responsible organizations) when establishing an assessment of external commitments.

3.3.6 Other Agency Support Activities: In addition to roles outlined for Principal Center Support, the Centers also provide other support to Agency initiatives. Examples at Marshall include: the Space Environments and Effects effort, AdminSTAR, Environmental Assessments Impact Statements, and Educational Alliances. Organizations should also take into account the necessary resource requirements for these activities when developing an assessment of external commitments.

3.3.7 Partnering Agreements: Organizations should examine internal and external (to MSFC) commitments with partners in order to gain a true understanding of resource requirements relative to work commitments with partnering organizations.

3.4 Core Capability Assessments

The end result of a Core Capability Assessment is the ability to identify the strengths and weaknesses present at the Center. This allows the Center to target new work opportunities best suited to our current capabilities, identify areas where shortcomings can affect performance, and determine the most urgent priorities requiring management attention.

3.4.1 Skills/Gap Analysis: In conjunction with the Plans and Systems Analysis Office, organizations, as the subject matter experts, will identify the skills and competency levels needed to complete present and future mission requirements. The Plans and Systems Analysis Office will utilize this information to build and maintain a comprehensive skills data base for skills gap analysis and workforce planning to meet Center needs.

3.4.2 Facility/Infrastructure Analysis: In conjunction with the Facility Engineering Department (and support from the Center Chief Financial Officer), organizations should determine the necessary facility requirements to support planned program/project activities. Emphasis should be placed on identification of new facility requirements, necessary upgrades to existing facilities and infrastructure, and any other facility initiatives required to enable mission success.

3.4.3 Information Technology (IT) Assessment: Working with the Information Services Department, organizations should gain an understanding of the requirements for applications programming support, mainframe computing system support, telephone services, cell phones and pagers, IT security, and other IT support required to support planned organizational activities.

3.4.4 Resource Analysis: With the assistance of the Office of Chief Financial Officer, organizations should examine the recent NASA and corresponding Office of Management and Budget and Presidential budget submits to identify trending data relative to support of MSFC Programs. The first submit of POP guideline data is the primary indicator of available resources to support program/project activities. This information is provided to the Centers early in the POP cycle and outlines resource availability for the fiscal operating year that will take effect late in the following calendar year. Although many iterations of budget submits will follow before the final NASA budget submit to OMB and the follow-up Presidential submit to Congress, this early POP guideline data provides the baseline for resource analysis in the second out-year fiscal timeframe.

3.4.5 Human Resource Analysis: In conjunction with the Human Resources Department, the organizations should identify and address personnel issues that will have an effect on their ability to complete mission requirements. These issues should be derived from the skill/gap analysis mentioned above. If current or future skill gaps are identified, the organizations should identify alternatives to hiring (i.e., partnering, detailing of employees, temporary hires, etc.) which can close the identified gaps with minimum impact on budgetary allotments.

3.4.6 Training Requirements Assessment: In conjunction with the Employee and Organizational Development Department, organizations must develop requirements for training required to enable organizational development at a level to support anticipated mission needs. The primary imperative is to increase employee knowledge and skills by helping them acquire functional and core competencies. Workforce productivity and leadership skills can

be increased through team building, mentoring, cross training, retraining, and other innovative means.

3.4.7 Partnering Opportunity Assessments: Organizations should perform an analysis of all current partnerships to identify capabilities present through these relationships. As stated earlier, the use of partner resources can offset shortcomings in civil service FTEs and facilities with a minimal impact to the Center budget. In addition, an analysis of partners can reveal technical capabilities that can provide substantial advances in meeting mission needs.

3.4.8 Technology Assessments: In conjunction with the Center Chief Technologist, organizations should identify the key areas for concentration in technology development. They should perform gap analyses to identify pertinent activities underway at other Field Centers, Federal agencies, industry, and academia. They should assess planned progress relative to Agency future needs and identify critical gaps. They should identify/form partnerships or alliances and identify remaining areas for in-house concentration. Once these areas are defined, the organizations should identify the resources required to adequately address these areas. These resources include skill mix requirements and the necessary equipment and facility requirements. A 5-year plan for resource acquisition should also be developed.

In addition, identification of anticipated short-term advances in business models and computer software applications can provide the organization priorities relative to near-term infrastructure upgrades.

3.4.9 Opportunity Assessments: With the aforementioned data in hand, organizations should now be able to identify current strengths and weaknesses that will impact mission performance. The knowledge generated should also provide an insight into alternatives to mitigate deficiencies through hiring and training prioritization, infrastructure initiative prioritization, and the use of additional or amended partnering.

In addition, organizations can target additional work (if resources allow) if it is determined prudent to do so. Pending approval by senior management, this will provide the basis for independent research and development and bid and proposal expenditures.

If, on the other hand, it is determined that the organization's position exposes it to outside threats, a plan should be

established to moderate the likelihood of an external party assuming this activity. If it is determined that it is in the Center's best interest to excise the activity in question, the organization should determine the best use of the now available resources.

3.5 Scenario Analysis

In performing scenario analysis, organizations need to anticipate possible outcomes (nominal, upper, and lower) based on the impacts of the following.

3.5.1 Political Decisions: With the assistance of the Government and Community Relations Department, the organization will evaluate possible political scenarios to include election results, committee appointments, budget decisions, and the international climate, which may affect enterprise and program direction.

3.5.2 Funding Changes/POP Submit Amendments: With the lead from Chief Financial Officer, the organizations will assess possible impacts of funding-level changes due to shifts in program priority, schedule, or management direction.

3.5.3 Prior Year Performance Issues/Critical Success Factor Performance: Impacts will be assessed based on prior year performance issues such as achieving or missing critical success factors or cost anomalies. These impacts may affect schedule, funding, and resource availability.

3.5.4 Workforce Changes: Scenarios will include evaluation of projected workforce changes due to buyouts, retraining needs, and identification of skills gaps. An evaluation should be made as to how the workforce can be redeployed internal and external to the organization to meet the needs of changing program direction.

3.5.5 Enterprise Decisions/Major Program Changes: Anticipate enterprise decision and major program changes and evaluate the impact on the Center's program and project implementation. These changes could result from rescoping, delaying, accelerating, or termination of key programs. Consideration will be given to changing roles and responsibilities between enterprises and the impact of the new Biological and Physical Research Enterprise.

3.5.6 Partnering Changes: Evaluate the impact of partnering arrangements with industry, other Government agencies, Department of Defense (DoD), academia, and other NASA Centers. These scenarios will examine alternative partnering relationships

relative to the partners' ability to contribute facilities, people, hardware, and funding.

3.5.7 Facility Planning Anomalies: Scenarios should be evaluated to account for delays in funding for Construction of Facilities (CoF) projects, including but not limited to descoping, relocation, and termination. Also to be taken into account is the opportunity to use facilities at contractor plants or partner locations. In rare instances, funding for facility initiatives might become available earlier than anticipated or a facility upgrade might be accomplished before scheduled. If so, the organization should plan for accelerated deployment and use of the facility or infrastructure upgrade.

3.5.8 Hiring Issues: Evaluate the impact of hiring anomalies on planned human resource initiatives. This scenario should examine alternatives to deal with possible shortages in the availability of required skills from college graduates and shortages in experienced workers available. Scenarios should also assess the impact of outside hiring authority and the time required to incorporate new employees into the workforce (i.e., required training, levels of on-the-job experience, other organizational development issues, etc.).

3.5.9 Environmental Impacts: Where applicable, and with the assistance of the Environmental Engineering Department, organizations should address the possible environmental hazards of ongoing or new work initiatives.

3.6 Senior Management Approval: Each directorate shall present strategic planning documents to senior management for approval/recommendations.

3.7 Execution

3.7.1 Based on additional strategic direction (i.e., Center goals/objectives, annual performance plan requirements, POP guidelines, enterprise plan updates, changes in Headquarters' initiatives, changes in Congressional/political priorities, etc.), organizations will execute their efforts based on developed/approved strategic plans. This execution shall be in accordance with any applicable/associated documents or directives established to govern the execution of MSFC programs/projects.

3.7.2 The strategic plan will serve as the basis for adjustment of related Center planning documents. The following list contains examples of these types of documents/plans, but is not all-inclusive.

Workforce Deployment
Resource Allocation Priorities
Center Metrics Development
Program/Project Plans Reassessment
Strategic Planning Agreements/Collaborative Work Commitments
Construction of Facilities 5-Year Program
Outreach Initiatives
Facility Utilization Plans
Information Technology Investment Priorities
Partnering Agreements
Organizational Development Priorities

3.7.3 Additional execution guidelines are found in MPG 1230.1, "Center Resources Management Process."

3.8 Evaluation

Performance evaluation and analysis are integral to successful future planning initiatives. Performance results shall be accumulated and evaluated to determine areas requiring improvement. Organizations should perform this activity in accordance with MPG 1280.9, "Continual Improvement."

3.8.1 Performance data generated in the current evaluation period becomes the starting point for the following planning cycle.

3.8.2 Interim and final status against defined FY metrics will be documented on the Center's Balanced Score Card Web site.

3.8.3 Final status of performance will be documented in the Center FY annual report in accordance with MPG 1130.2, "MSFC Annual Report Process."

4. RECORDS

The completed Center and other organizational strategic plans are the quality records resulting from this process. The directorates will retain them, for as long as needed, until superceded, or for no longer than 5 years in accordance with NPG 1441.1, "NASA Records Retention Schedules."

5. FLOW DIAGRAM

A flow diagram is attached on the following page.